

```
In [2]: import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
from seaborn import load_dataset
```

```
In [3]: dataset = sns.load_dataset("titanic")
```

```
In [7]: dataset.head()
```

Out[7]:

|   | survived | pclass | sex    | age  | sibsp | parch | fare    | embarked | class | who   | adult_m |
|---|----------|--------|--------|------|-------|-------|---------|----------|-------|-------|---------|
| 0 | 0        | 3      | male   | 22.0 | 1     | 0     | 7.2500  | S        | Third | man   | Ti      |
| 1 | 1        | 1      | female | 38.0 | 1     | 0     | 71.2833 | C        | First | woman | Fa      |
| 2 | 1        | 3      | female | 26.0 | 0     | 0     | 7.9250  | S        | Third | woman | Fa      |
| 3 | 1        | 1      | female | 35.0 | 1     | 0     | 53.1000 | S        | First | woman | Fa      |
| 4 | 0        | 3      | male   | 35.0 | 0     | 0     | 8.0500  | S        | Third | man   | Ti      |

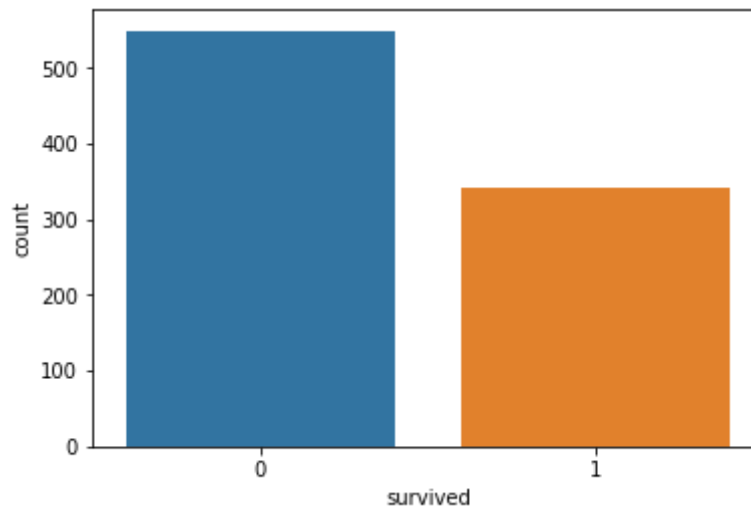
```
In [8]: tips = load_dataset("tips")
```

```
In [9]: tips.head()
```

Out[9]:

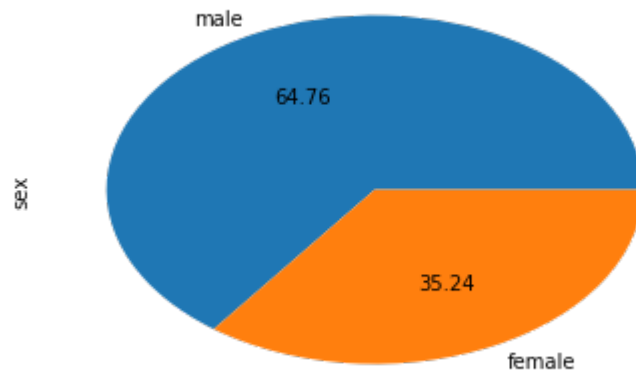
|   | total_bill | tip  | sex    | smoker | day | time   | size |
|---|------------|------|--------|--------|-----|--------|------|
| 0 | 16.99      | 1.01 | Female | No     | Sun | Dinner | 2    |
| 1 | 10.34      | 1.66 | Male   | No     | Sun | Dinner | 3    |
| 2 | 21.01      | 3.50 | Male   | No     | Sun | Dinner | 3    |
| 3 | 23.68      | 3.31 | Male   | No     | Sun | Dinner | 2    |
| 4 | 24.59      | 3.61 | Female | No     | Sun | Dinner | 4    |

```
In [16]: sns.countplot(dataset['survived'])
plt.show()
```

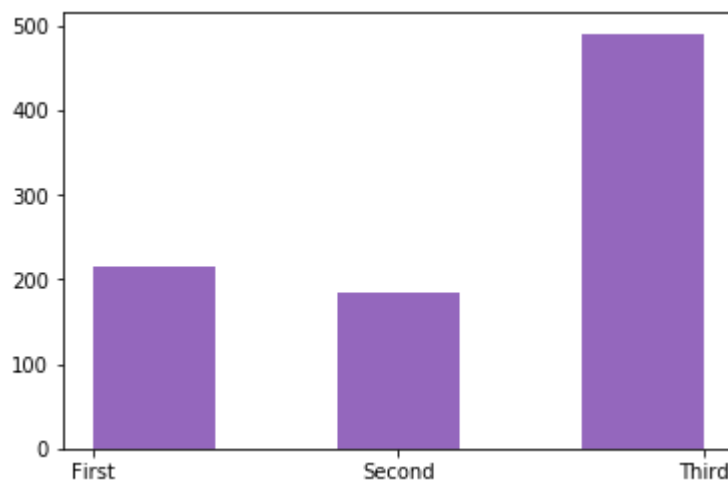


```
In [18]: dataset['sex'].value_counts().plot(kind="pie", autopct="%.2f")
```

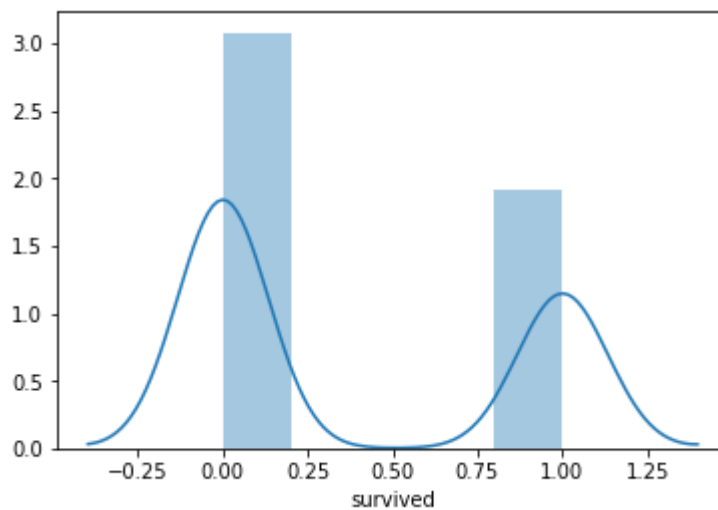
```
plt.show()
```



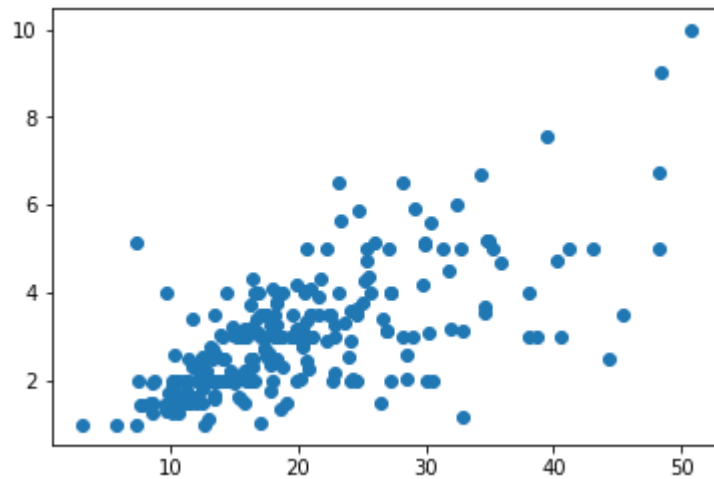
```
In [25]: plt.hist(dataset['class'], bins=5)
plt.show()
```



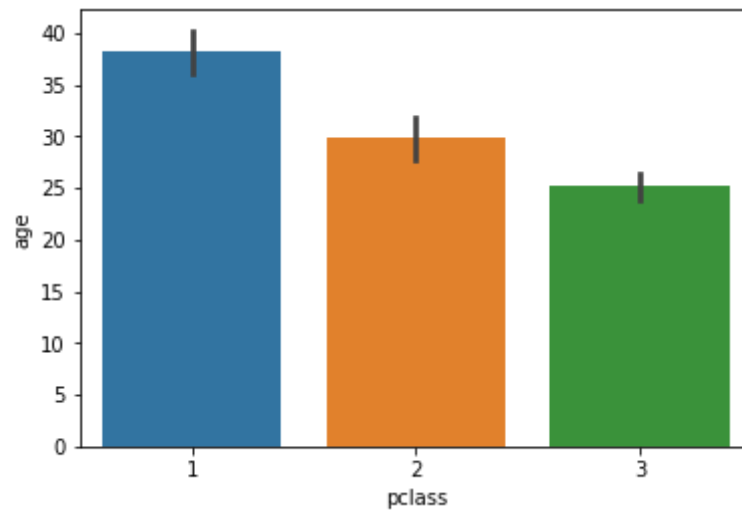
```
In [30]: sns.distplot(dataset['survived'])
plt.show()
```



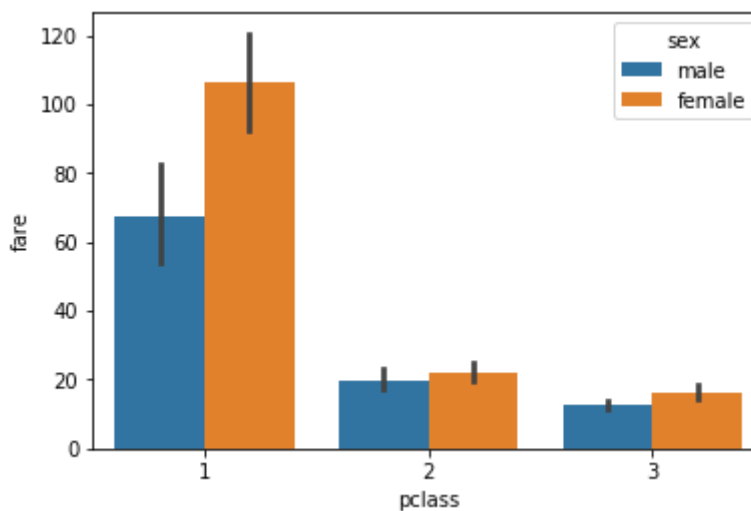
```
In [42]: plt.scatter(tips["total_bill"], tips["tip"])
plt.show()
```



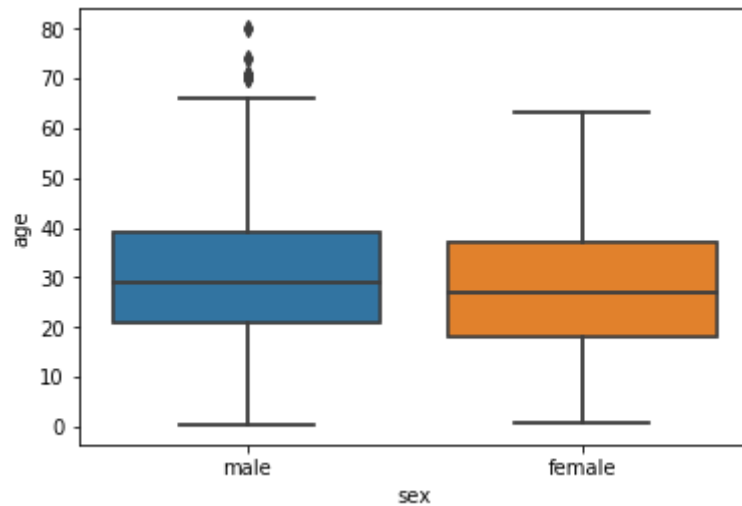
```
In [48]: sns.barplot(dataset['pclass'], dataset['age'])
plt.show()
```



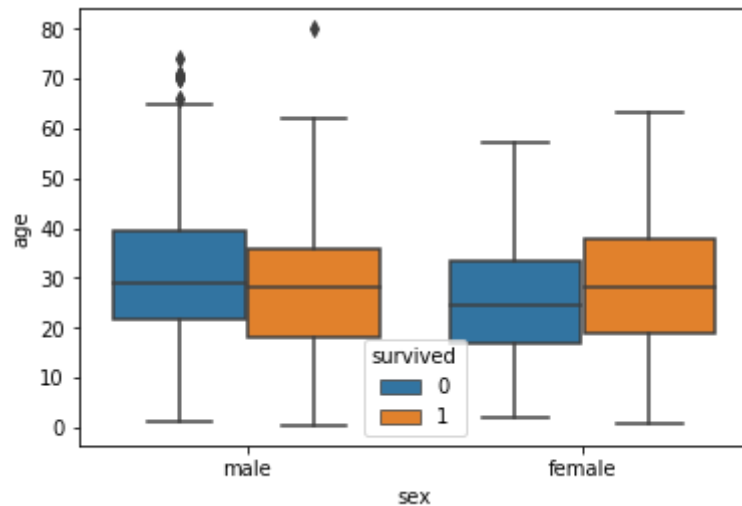
```
In [52]: sns.barplot(dataset['pclass'], dataset['fare'], hue = dataset["sex"])
plt.show()
```



```
In [56]: sns.boxplot(dataset['sex'], dataset["age"])  
plt.show()
```

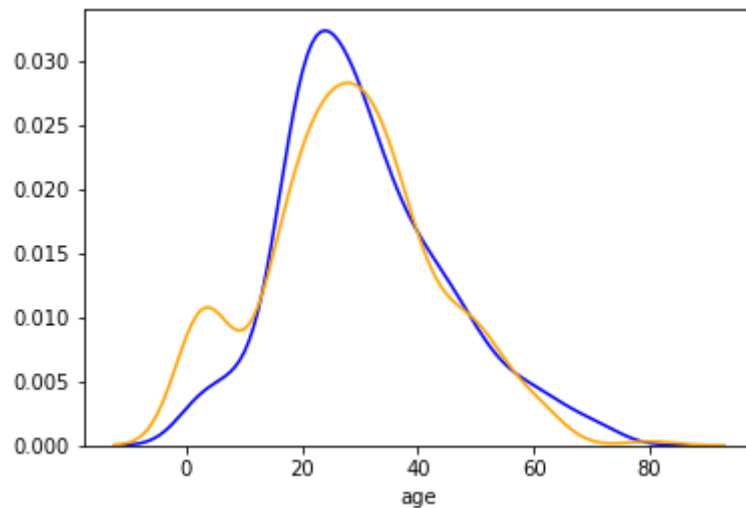


```
In [58]: sns.boxplot(dataset['sex'], dataset["age"], dataset["survived"])  
plt.show()
```



```
In [60]: sns.distplot(dataset[dataset['survived'] == 0]['age'], hist=False,
sns.distplot(dataset[dataset['survived'] == 1]['age'], hist=False,
plt.show())

/home/student/anaconda2/lib/python2.7/site-packages/statsmodels/nonparametric/kde.py:454: RuntimeWarning: invalid value encountered
in greater
  X = X[np.logical_and(X>clip[0], X<clip[1])] # won't work for two
columns.
/home/student/anaconda2/lib/python2.7/site-packages/statsmodels/nonparametric/kde.py:454: RuntimeWarning: invalid value encountered
in less
  X = X[np.logical_and(X>clip[0], X<clip[1])] # won't work for two
columns.
```

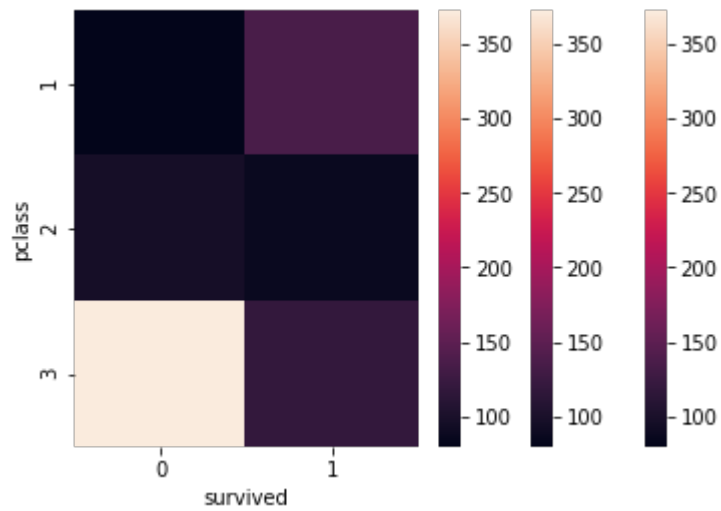


```
In [64]: pd.crosstab(dataset['pclass'], dataset['survived'])
```

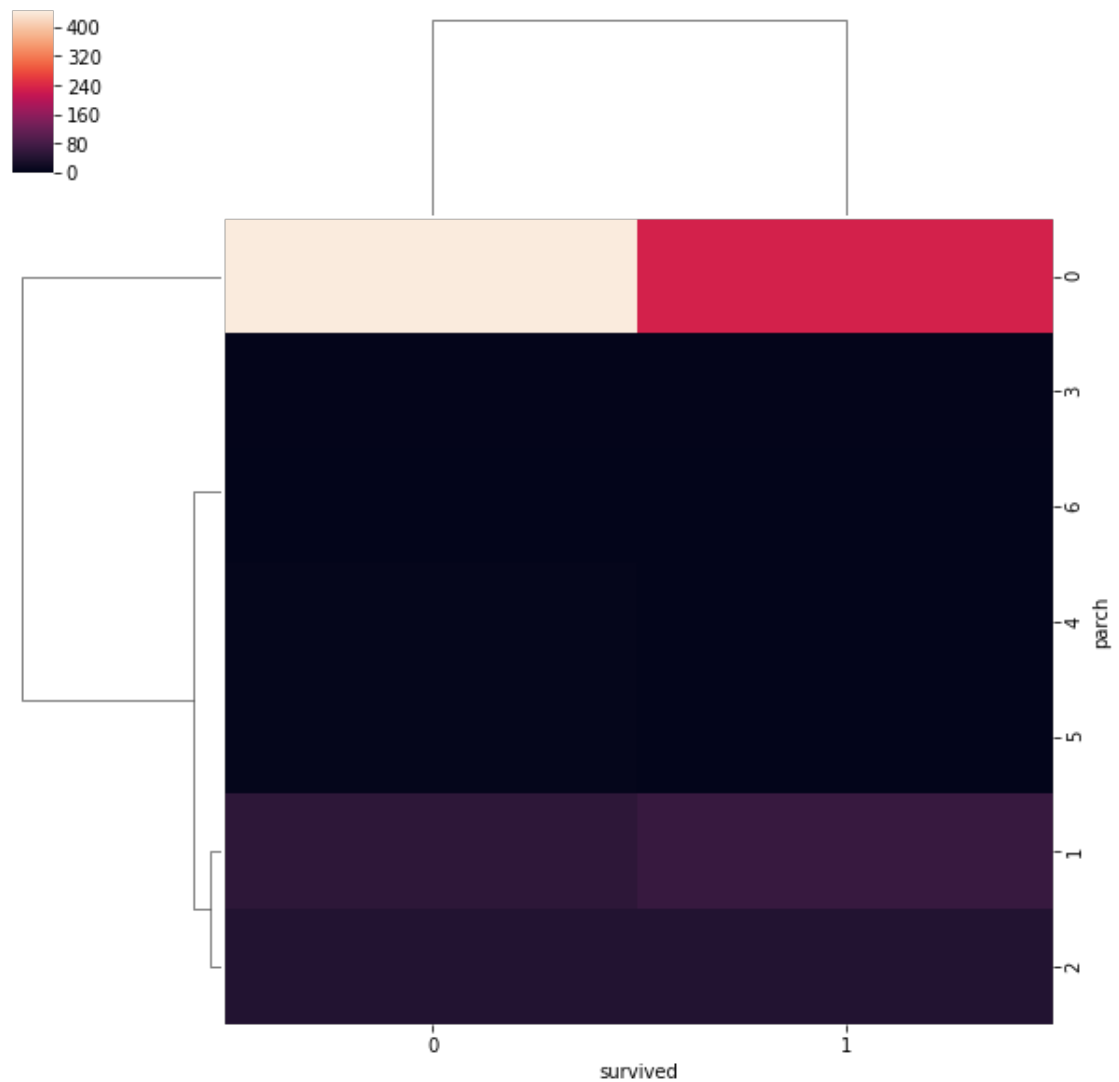
Out[64]:

|        |     | survived 0 | 1 |
|--------|-----|------------|---|
| pclass |     |            |   |
| 1      | 80  | 136        |   |
| 2      | 97  | 87         |   |
| 3      | 372 | 119        |   |

```
In [68]: sns.heatmap(pd.crosstab(dataset['pclass'], dataset['survived']))
plt.show()
```



```
In [70]: sns.clustermap(pd.crosstab(dataset['parch'], dataset['survived']))
plt.show()
```



```
In [ ]:
```

